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ABSTRACT OF THE DISCLOSURE

ENRICHMENT METHOD FOR GROWTH HORMONE VARIANTS WITH ALTERED BINDING PROPERTIES

A method for selecting novel proteins such as growth hormone and antibody fragment variants having altered binding properties for their respective receptor molecules is provided. The method comprises fusing a gene encoding a protein of interest to the carboxy terminal domain of the gene III coat protein of the filamentous phage M13. The gene fusion is mutated to form a library of structurally related fusion proteins that are expressed in low quantity on the surface of a phagemid particle. Biological selection and screening are employed to identify novel ligands useful as drug candidates. Disclosed are preferred phagemid expression vectors and selected human growth hormone variants.